

**IN THE UNITED STATES COURT OF FEDERAL CLAIMS**

BENCHMARK RESOURCES	)	
CORPORATION, GENTRY	)	
CORPORATION, and SUNRISE	)	No. 03-178L
HOLDING, INC.,	)	
	)	Honorable Christine Odell Cook Miller
Plaintiffs,	)	
	)	
v.	)	
	)	
THE UNITED STATES OF AMERICA,	)	
	)	
Defendant.	)	
	)	

---

**DECLARATION OF MARCUS A. WILEY**

I, Marcus A. Wiley, pursuant to 28 U.S.C. §1746, declare as follows:

1) I am a registered professional engineer with extensive experience in mine engineering and management. For example, I have worked in the coal industry since 1971 and have served as an independent mining consultant for over 25 years, during which time I have provided the mining industry with mine planning, economic evaluations, project management, feasibility studies, due diligence analysis, geologic mapping, reserve studies, litigation support, and other professional mining related services. I have been and currently am a part owner in both underground and surface coal mine operations. I am an instructor at the Colorado School of Mines where I have taught courses in Coal Mining Methods and Mine Valuation. My CV is attached hereto as Exhibit "A." I am the present manager of Wiley Consulting, LLC, a consulting practice that provides professional engineering services, including coal property evaluation, economic feasibility, permitting, reserve analysis, litigation support, and expert witness testimony.

2) Wiley Consulting, LLC ("Wiley") was retained by Benchmark Resources Corp. to copy maps prepared by Mr. Arthur D. Thompson, P. E. related to the Wharton coal property located in Hamilton and Bledsoe Counties, Tennessee into an electronic format. After the maps were copied, individual coal resource areas were determined based upon their location, either within the boundary of or outside of the area designated by the Office of Surface Mining as the Rock Creek Watershed (RCWS).

3) I have visited the Wharton Tract and have also reviewed portions of an Environmental Impact Statement prepared in connection with a Petition for Unsuitability as to the Rock Creek Watershed. However, the basis for my estimate of coal resources relies principally on the original geologic work as prepared by Mr. Art Thompson, Professional Engineer under his company named Minerals Associates Inc. in a report dated January 10, 1982. It is common practice in the industry for professional engineers to rely on the work of other professionals, as I did in this case. Mr. Thompson's geologic work in which he analyzed coal intercepts of 172 drill and core holes, took 76 additional coal measures from outcrops on the property, and made numerous measurements of coal thickness from abandoned mines and elsewhere on the property, (Thompson Report at pp. 1, 24), fully complies with proper engineering standards.

4) Based upon the maps provided and signed by Mr. Thompson, and stamped with his professional engineering seal, Wiley electronically scanned the maps and traced the geologic reserve areas into a software program used for mapping and engineering known as AutoCAD. From these AutoCAD map files, reserves were calculated based upon coal thicknesses as shown on the maps and AutoCAD area calculations. An Excel spreadsheet was prepared listing each individual resource area, designated as either inside or outside the Rock Creek watershed

boundary and identified as either surface or underground mineable. A table was then prepared summarizing the reserves for the Wharton property. This table is attached hereto as Exhibit "B."

5) The Wharton property contains approximately 29,000 acres of coal lands in fee simple and mineral only rights. The property is located between Chattanooga and Knoxville in the Sale Creek, TN area.

6) The coal resources on the Wharton property are contained within several seams. The lowermost seam is the Nelson, then the Richland, the Sewanee, the Lantana, the Richey Ridge, with the uppermost seam being the Morgan Springs. Copies of the maps, identifying each of the reserve areas by mining method and its location either in or out of the watershed boundary for each of these seams, are attached to this declaration as Exhibit "C."

7) Based on the maps prepared by Mr. Thompson, and re-calculated by Wiley, total in place resources for both surface and underground coal for the Wharton tract would total 149 million tons. Coal reserves were based upon a coal density of 80 pounds per cubic foot. Surface mineable recovery was estimated at 90% of available resources based upon my own personal experience with thin seam coal contour strip mining methods. This is less conservative than either Mr. Thompson who used a 75% recovery factor in his report, or OSM which used a recovery factor of 80% in the Environmental Impact Statement. Underground mineable recovery was estimated at 50% of indicated resources. In this case I was more conservative than Mr. Thompson who used 60% and exactly the same as OSM, which also used a 50% recovery factor to estimate recoverable resources in the EIS. Based upon these assumptions, recoverable resources (reserves) were estimated at 17.7 million tons by surface mining methods and 64.7 million tons recoverable by underground mining methods for a total Wharton tract property of 82.4 million tons recoverable. This is comparable with the Thompson evaluation which reports

in-place resources (both proved and probable) of 142.1 million tons and recoverable of 84.6 million tons.

8) The Rock Creek watershed boundary line was transferred to the geologic maps from an Office of Surface Mining topography map. This line required some adjustment to follow the terrain and actual watershed boundaries as indicated by the topography map. This adjustment was due to a scale difference from the small OSM map transferring to the USGS 1 inch to 2,000 feet topography base maps used for this report. Reserves of coal, contained within the watershed boundary were then calculated using AutoCAD and the methods as previously described. The resultant tonnage is 10.8 million tons of surface coal and 31.4 million tons of underground coal for a total of 42.2 million tons. However, by the removal of the ability to mine coal contained within the Rock Creek watershed boundary, additional fringe areas or small reserve fragments would be unable to be mined. These areas are outside of the watershed boundary and inside the Wharton tract property. These small areas would not be economically mineable due to their size, location or ability to provide sedimentation control, road access or other obstacles to mining. A total of 0.6 million tons of surface mineable coal would be classified as sterilized for mining purposes, and an additional 5 million tons of underground coal would not be recoverable. This is an additional 5.6 million tons of coal that has been sterilized by the designation of the Rock Creek watershed boundary. Total reserves affected by the designation of the Rock Creek watershed boundary as unsuitable for surface mining and the surface disturbance related to underground mining are 11.5 million surface tons and 36.4 million underground tons for a total of 47.9 million tons. A detailed spreadsheet of these reserve calculations is attached to this declaration as Exhibit "D."

9) My estimation of coal resources owned by Plaintiffs and contained within the RCWS boundary (42.2 mm tons) based upon the maps prepared by Mr. Thompson compares favorably with the OSM estimate (47.0 mm tons) as is shown on the table attached to this declaration as Exhibit "E."

10) It is my opinion, as a professional mining engineer, that the designation of certain lands in the Rock Creek watershed, Tennessee as unsuitable for surface coal mining operations by the Office of Surface Mining has removed from the Wharton tract, a total of 47.9 million tons of coal from the viability of mining. Although the OSM designation decision states that the Sewanee coal seam could be mined using some unconventional overburden mixing technique for reclamation, it is my opinion that such a technique is not a viable option. In a contour mining environment, it is very difficult to separate acid forming overburdens and maintain assurance that no exposure to water will occur thus preventing acid runoff. Without proper assurance ahead of mining, the permitting agency is reluctant to approve the mining plan.

11) Even if a permit could theoretically be obtained, multiple seams need to be mined together to provide acceptable economic limits. The Hall, Middle, and Rock Creek drainages are designated as unsuitable for all surface mining operations and surface disturbances from underground mining by OSM, and these drainages contain most of the surface mineable coal on the Wharton tract and overlay most of the underground coal as well. It is my opinion, due to the potential surface impact from underground mining, such as possible subsidence and probable hydrologic consequences, that the underground mining of coal from areas contained within the Rock Creek watershed boundary are also precluded from mining due to the OSM designation of unsuitability within the drainage areas. Although OSM says that a permit can be submitted in these areas for underground mining, it would be impossible to commit to a plan to mine

underground coal within the Rock Creek Watershed that does not have surface disturbance within the Hall, Middle and Rock Creek gorges

12) Based upon the coal resource tonnages, a total of 51% of the coal is contained within the watershed boundary and an additional 7% that is in fringe areas too small or remote to mine alone for a total of 58%. This leaves 42% of the coal resources available for mining, however, due to the configuration and non-congruency of the remaining reserves outside of the watershed boundary, a sensible mine plan cannot be prepared and submitted for these reserves either. This can be seen from the maps attached hereto. The underground mineable coal seams outcrop outside of the watershed boundary and would normally provide the access to the reserves contained within the boundary areas, however in this instance old abandoned coal mines are located all along the outcrop area. This prevents access to the coal behind the old mines and would therefore require access from the other side of the mountain thus disturbing the watershed with surface disturbances related to underground mining which is prohibited. An access drift could be developed above the old mines, but such access would not be economically feasible for the divided tracts of coal remaining.

13) It is my opinion that of the 82.4 million tons that are potentially recoverable from the Wharton tract, that by the removal of 47.9 million tons in the center of the reserve, the overall impact to the property is that not enough coal is left contiguously mineable to amortize the capital cost for infrastructure (office, shop, warehouse, coal preparation plant, portal, ventilation, rail access, load-out, employee training, continuous miners, belt haulage, surface mining equipment, sediment control, etc.) to justify mining any tonnage at all. Mr. Thompson provided an economic analysis as of 1982 and reported the viability of mining these properties based upon the availability of the entire tract of coal resources. My personal experience with

clients looking for property today is that although small tracts of coal are mined in currently active areas, companies need at least a block of 100 million tons to justify full infrastructure in inactive areas such as is the case in Tennessee.

14) It is therefore, my opinion that the designation by OSM of unsuitability within the Rock Creek watershed boundary eliminates the viability of mining the entire Wharton Tract.

15) This conclusion is markedly different from the pre-Decision report authored by Mr. Thompson who opined that “the Wharton property remains as one of the largest undeveloped coal reserves in the southern Tennessee coal field. The seams that are contained on the ownership are considered premium coals that command premium prices. . . . All coals that occur on the Wharton Property can be easily marketed in a highly competitive sellers market.” (Thompson Report at p. 36).

16) But for the Decision issued in this instance, my ultimate conclusion as to the mineability of the Wharton Tract would mirror Mr. Thompson’s. Prior to the Decision, Benchmark et al. owned extremely valuable mining resources. Today, because of the Decision, the Wharton Tract has no practical value for mining purposes.

17) I have reviewed a declaration prepared by Alan K. Stagg in connection with the foregoing proceeding. I am familiar with Mr. Stagg’s work: we share a common client.

18) I have also reviewed a declaration prepared by Douglas Siddell in connection with this proceeding.

19) I am aware that Mr. Stagg faults my report because it does not estimate such geologic matters as “minimum bed thickness” or “in-bed parting” and whether the estimates are “measured,” “indicated,” or “inferred.” While it is true that my report does not address certain geologic terms referenced by Mr. Stagg, Mr. Thompson’s report provides the underlying

geologic data. I also note that Mr. Stagg's report offers no opinions on these matters either. Although Mr. Stagg recites that he independently "evaluated the coal potential of the Wharton Property during the late 1970's," I have not reviewed this report and do not know whether his opinions differ from mine. Because Mr. Stagg was not asked to independently estimate coal reserves on the property, I presume that the work of Mr. Thompson, which I relied upon, is acceptable to OSM for present purposes. In any event, without independent testing conducted by Mr. Stagg or another, I do not believe that he can provide opinions challenging Mr. Thompson's geologic studies or my resulting conclusions.

20) I agree that using the word "resources" would be a better choice of words than "reserves" for my report. I note, however, that the Office of Surface mining uses the same terminology that I used as "resource" and then "reserve" based upon mining recovery percentages in its EIS resource reporting. Further, quibbling over terminology in my report is distracting from the real issue which is how much coal has been effectively removed in the RCWS from that which is available on the Wharton tract, regardless of its technical classification.

21) Mr. Stagg does not challenge the detailed estimates referenced in the Thompson Report or the EIS. In fact, he does not state that he even examined either of these source documents. As such, Mr. Stagg's critique of my report is similar to a linguist finding fault with a translated document, without considering the original document itself.

22) I am familiar with Circular 891 and the principles embodied in the 2005 SME Guide, as referenced by Mr. Stagg. These guides are for reporting resources and reserves for publicly traded companies and for shareholders. My report was prepared for the owner of the property and is therefore in a different class of report requirement. I believe that Mr.

Thompson's Report, as updated by me in the manner referenced herein, provides reliable estimates of coal reserves that are accepted in the geologic industry. Further, my calculations, as based upon Mr. Thompson's Report, can be independently verified.

23) Mr. Stagg also criticized the lack of specific economic analysis in my report. I did not prepare an economic feasibility study because with industry experience in evaluating mineral properties, one can assess a property's potential without a full detailed economic analysis. I note further that the 2005 SME guide referenced by Mr. Stagg states that "Recommendations made in this guide, that price assumptions and sensitivity to price changes be disclosed, do not apply to coal" (Stagg Declaration, Exhibit 3, at App. III p. 733, item 62)

24) I note that neither Mr. Stagg nor Mr. Siddell disagree with the proposition that it would be futile to mine at least a portion of the Wharton Tract: the Designation categorically precludes surface coal mining and surface disturbance incident to underground mining in the Hall, Middle, and Rock Creek gorges.

25) For the reasons referenced herein, even after reviewing Mr. Stagg's and Mr. Siddell's declarations, it is my opinion that the designation by OSM of unsuitability within the Rock Creek watershed boundary essentially eliminates the viability of permitting and mining the entire Wharton tract. My opinions regarding mineability are based upon my many years of experience in the coal industry including working for coal companies as an employee, consultant, mining contractor and as a part owner of a mining company.

In accordance with 28 U.S.C. §1746, I hereby declare and affirm under penalty of perjury that the foregoing is true and correct.



Marcus A. Wiley  
Marcus A. Wiley, PE  
Colorado Registered Professional Engineer 14650